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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,070	03/08/2002	Ernst Gerber	753-11 PCT/US	8511

7590

04/22/2004

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EXAMINER
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CADUGAN, ERICA E

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 04/22/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/088,070

Applicant(s)

GERBER, ERNST

Examiner

Erica E Cadugan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2-41807 (hereinafter '807).

'807 teaches a "holder", including members 10 and 11, shown in Figure 1, for holding a tool shank (abstract, i.e., the shank of the tool holder is a "tool shank", and additionally constitutes a "machine part" as claimed). Note that the "holder" includes a spindle or "body" 10 having a bore into which a ceramic sleeve 11 is fitted and held via a thermal shrink fit (see English abstract, Figures 1-3). A tool holder is inserted into the bore 11c of the sleeve 11 (Figures 1-3, English abstract), and the sleeve "holds" the tool holder (and thus the tool held thereby) therein (see English abstract). Additionally, it is noted that the diameter of the sleeve bore 11c is such that it permits a smaller diameter tool to be held than would otherwise be held by the bore of the "holder" 10, and thus is considered a "reducing" sleeve". Since the sleeve can be removed (English abstract, Figures 1-3), it is "interchangeable". Additionally, the sleeve 11 is affixed to the "holder" 10 via a shrink fit and screws or bolts 13, and thus the sleeve is considered to be "fixed" to the holder 10.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2-41807 ('807) as applied to claim 6 above.

'807 teaches all aspects of the claimed invention as described in the above rejection based thereon, and additionally, it is noted that '807 does explicitly teach that the sleeve 11 is "ceramic" as described above. However, '807 is apparently silent about the material of the "body" 10 and the "tool shank" or "part" held in the bore 11c.

However, to make spindles as well as tapered toolholders of the type held in the tapered bore 11c out of tool steel is extremely well-known and widespread in the art. It is noted that tool steel has a higher coefficient of thermal expansion than do ceramics, as is evidenced by the ASM Handbook, Vol. 20, page 279, Figure 13.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made both the spindle and the tapered toolholder held in bore 11c of the spindle out of tool steel as is commonly known and done in the art, for the purpose of realizing any of the known benefits thereof, such as widespread availability, for example.

#### ***Response to Arguments***

5. Applicant's arguments filed November 5, 2003 (and October 7, 2003) have been fully considered but they are not persuasive.

6. Applicant makes a number of assertions about the Japanese (2-41807) patent. However, it appears that Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing

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out how the language of the claims (emphasis added) patentably distinguishes them from the references.

Examiner will address Applicant's remarks to the extent that they are understood to apply to the present claim language.

Firstly, Applicant has asserted that "the Japanese patent fails to show any configuration of a tool holder" and that "[w]ithout any specific disclosure of the construction of a tool holder, there is no disclosure or suggestion in the Japanese patent to place a sleeve inside of a body of a tool holder, as set forth in claim 6". However, the entire structure viewed in Figure 1 of the Japanese reference constitutes a "tool holder" since a tool is ultimately held within bore 11c.

Applicant has also stated that "[a]s set forth in the previous response, the ceramic sleeve disclosed in the Japanese patent is intended to be outside of a tool holder, and, in effect, is a ceramic liner for the spindle bore". Examiner does not disagree. However, this does not appear to be relevant to the present claim language. It is again noted that the spindle and sleeve themselves constitute a "toolholder" since the "toolholder" referred to by Applicant (i.e., the one held in the bore 11c of the sleeve) as well as the tool mounted to the not-shown toolholder are ultimately held thereby, and thus the language of claim 6 is met by the structure of '807.

Additionally, Applicant states:

Moreover, there is no disclosure or suggestion in the Japanese patent to have the ceramic sleeve 11 fit onto a tool shank or machine part. As shown in the figures of the Japanese patent, the ceramic sleeve 11 defines a tapered bore. As is known in the art, the tapered bore is formed to fit a tapered tool holder which, in turn, holds a tool shank or machine part.

Again, Applicant's reasoning is unclear. As stated by Applicant, "[a]s is known in the art, the tapered bore is formed to fit a tapered tool holder which, in turn, holds a tool shank or machine part". Thus, by Applicant's own statement, the tapered bore 11c of the sleeve 11 is formed to fit

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a “machine part”, i.e., the “tool holder” described by Applicant, which “tool holder” as described by Applicant also constitutes a “tool shank” since the part of the “tool holder described by Applicant that fits into bore 11c is a “shank” of a device ultimately fixedly connected to a tool.

### ***Conclusion***

7. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to Office Actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica Cadugan whose telephone number is (703) 308-6395. The examiner can normally be reached on Monday through Thursday from 7:30 a.m. to 5:00 p.m., and every other Friday from 7:30 a.m. to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, A.L. Wellington can be reached at (703) 308-2159. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 3700 receptionist whose telephone number is (703) 308-1148.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Erica E Cadugan', with a long, sweeping horizontal line extending to the right.

Erica E Cadugan  
Primary Examiner  
Art Unit 3722

eec  
April 16, 2004